

- 1. UV illuminating device for crosslinking biocompatible, polymerisable material in order to produce an ophthalmic moulding, especially an ophthalmic lens, in particular a contact lens, which is produced by crosslinking with UV light in a casting mould consisting of two mould halves, **characterised by** one or more UV lamps which are each surrounded by several optical fibres, whereby the optical fibres transmit the light emitting from the UV lamp to one or more casting moulds.
- 2. UV illuminating device according to clair 1, whereby an optical fibre is linked to a casting mould.
- 3. UV illuminating device according to claim 1 or claim 2, whereby the UV lamp in question is a mercury lamp.
- 4. UV illuminating device according to claim 3, whereby the UV lamp in question is a doped mercury lamp.
- 5. UV illuminating device according to one or more of claims 1 to 4, whereby the optical fibres in question are liquid optical fibres.
- 6. UV illuminating device according to one or more of claims 1 to 5, whereby the emission spectrum of the UV lamp has a high UV intensity at 280 360 nm.
- 7. UV illuminating device according to one or more of claims 1 to 6, whereby a sensor measuring the radiation intensity of the UV lamp is provided and connected to a regulating unit to regulate the UV radiation.
- 8. UV illuminating device according to one or more of claims 1 to 7, whereby a measuring unit is provided to measure the emitting UV radiation intensity.
- 9. UV illuminating device according to one or more of claims 1 to 8, whereby in order to couple in the UV radiation, a quartz rod is respectively provided between the UV lamp and the light admission area of the optical fibre.



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- 10. UV illuminating device according to claim 9, whereby a cut-on filter is provided between the quarz rod and the optical fibre in order to absorb short-waved UV radiation.
- 11. UV illuminating device according to plaim 10, whereby a WG 305 is provided as the cuton filter.
- 12. UV illuminating device according to one or more of claims 1 to 11, whereby a diaphragm is provided between the optical fibre and the UV lamp.
- 13. UV illuminating device according to claim 12, whereby the aperture of the diaphragm is adjusted by means of a stepping motor unit.
- 14. UV illumination device according to one or more of claims 8 to 13, whereby the aperture of the diaphragm is controlled in accordance with the measurement of UV radiation intensity being emitted.
- 15. UV illuminating device according to one or more of claims 1 to 14, whereby a UV condenser is mounted between the optical fibre and the mould half.
- 16. UV illuminating device according to one or more of claims 1 to 15, whereby the optical fibres are arranged radially around the UV lamp in relation to the longitudinal axis of the UV lamp.

